

## REMARKS

Applicant respectfully requests reconsideration of this application in view of the following remarks. For the Examiner's convenience and reference, Applicant's remarks are presented in substantially the same order in which the corresponding issues were raised in the Office Action.

As a preliminary matter, the Examiner has not initialed a copy of the PTO-1449 form references that were mailed to the USPTO on April 8, 2005. The Examiner also did not indicate the references on the PTO-1449 form(s) were not in conformance with MPEP § 609. As such, applicant respectfully requests that the Examiner indicate that these references have been considered and made of record. This applies only to the second page of references; the first page was initialed previously.

### Status of the Claims

Claims 1-25 are pending. Claims 1, 7, 9, and 11 are currently amended. Claim 14 is canceled. No claims are added. No new matter has been added.

### Summary of the Office Action

Applicant respectfully requests clarification with regard to the summary of the Office Action. There appears to be some confusion as to which claims are rejected and which claims are objected to. In particular, claim 19 is both rejected (reasons for the rejection are presented on page 4) and objected to as containing allowable subject matter (reasons for the indication of allowable subject matter are presented on page 5). Also, claim 5 is listed as being rejected, but no reasons for the rejection are provided, and listed as being objected to as containing allowable subject matter (reasons for the indication of allowable subject matter are presented on page 5). Accordingly, Applicant respectfully requests that the status of claim 5 and 19 be clarified. For purposes of this response, claims 5 and 19 are both treated as being objected to, and not rejected, since reasons for the indication of allowable subject matter are provided for both claims.

Claims 5-6, 9-10, 13-14, 19, and 21 stand objected to as depending from a rejected independent claim, but would be allowable if rewritten in independent form to include all intervening claim limitations.

Claims 1-4, 7-8, 11-12, 15-18, 20, and 22-25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,029,219 to Michizono et al. (hereinafter “Michizono”) in view of U.S. Patent Publication No. 2003/0156597 to Eberle et al. (hereinafter “Eberle”).

#### Response to Objections to the Specification

The specification stands objected to because the title of the invention is not descriptive. In particular, the Office Action states that a new title is required that is clearly indicative of the invention to which the claims are directed. Applicant respectfully submits that the specification is amended as “INTERCONNECT CONFIGURATION FOR LOW-POWER SHARED LINK ARBITRATION.” Accordingly, Applicant respectfully requests that the objection to the specification be withdrawn.

#### Response to Rejections under 35 U.S.C. § 103(a)

The Office Action rejected claims 1-5, 7-8, 11-12, 15-18, 20, 22-25 under 35 U.S.C. § 103(a) as being unpatentable over Michizono in view of Eberle. Applicant respectfully requests withdrawal of these rejections because the combination of cited references fails to teach or suggest all of the limitations of the claims.

#### CLAIMS 1-10

Claim 1 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Michizono in view of Eberle. Applicant respectfully submits that claim 1 is patentable over the combination of cited references because the combination does not teach or suggest all of the limitations of the claim. Claim 1 recites:

A method, comprising:

- identifying one or more initiating network resources** that present a transaction on a first cycle;
- filtering out presented transactions from the arbitration process destined to target network resources that are currently not available to service a transaction;
- implementing an arbitration process among the remaining presented transactions to select a presented transaction from an initiating

network resource to an available target network resource that wins the arbitration; and  
configuring segments of the pathways in an interconnect **in the next cycle** to establish a connection between the initiating network resource and the available target network resource that won the arbitration. (Emphasis added).

In support of the rejection, the Office Action states, in part, that Michizono purportedly discloses identifying one or more processors that present a request or transaction on a first cycle (see col. 5, lines 28-34). The Office Action also states that Eberle discloses configuring segments of the pathways (i.e., switching) in an interconnect in the next cycle to establish a connection between the initiating node and the available target node that won the arbitration (see paragraphs 27-30).

Applicant respectfully disagrees with the Office Action's characterization of the prior art because the cited combination of prior art fails to teach or suggest all of the limitations of the claim. In particular, Michizono does not teach or suggest identifying one or more initiating network resources. Additionally, Eberle does not teach or suggest configuring segments of the pathways in an interconnect in the next cycle.

Michizono is directed to a round robin arbitration circuit. Michizono, Abstract. Although the Office Action refers to col. 5, lines 28-34, as purportedly disclosing identifying one or more processors, the cited reference merely states that the priority encoder provides an identifier to indicate a selected request having the highest priority. Michizono, col. 5, lines 31-33. In other words, the identifier merely identifies a request based on priority—the identifier does not identify a processor from which the request originated. Moreover, the identifier does not identify any type of initiating network resource. Therefore, Michizono does not teach or suggest identifying one or more initiating network resources.

The Office Action correctly recognizes that Michizono does not teach or suggest configuring segments of the pathways in an interconnect in the next cycle. Office Action, 6/16/06, pp. 2-3. Eberle does not cure this lack of teaching by Michizono. Eberle is directed to an arbiter to implement speculative allocation. Eberle, Abstract. In particular, the arbiter speculatively allocates (in the absence of a request) one or more shared resources in an attempt to efficiently use the shared resources. Eberle, paragraph 9. Although the Office Action refers to paragraphs 27-30 as purportedly disclosing

configuring segments of the pathways (i.e., switching) in an interconnect in the next cycle, the cited reference merely describes arbitration generally, and implementing speculative arbitration. Specifically, Eberle merely teaches that the arbiter chooses requests to be granted such that resources are allocated to requesters in a conflict-free way. Eberle, paragraph 27. Eberle also states that the arbiter speculatively grants the output port to one of the requestors. Eberle, paragraph 28. However, Eberle is silent as to when each resource is granted. Given that Eberle does not indicate when the arbiter grants resources, Eberle does not teach or suggest configuring segments of the pathways in an interconnect in the next cycle.

In contrast, claim 1 recites “identifying one or more initiating network resources” and “configuring segments of the pathways in an interconnect in the next cycle.” For the reasons stated above, Michizono and Eberle, either alone or in combination, fail to teach or suggest all of the limitations of the claim. In particular, the cited references do not teach or suggest identifying one or more initiating network resources and configuring segments of the pathways in an interconnect in the next cycle. Given that the cited references fail to teach or suggest all of the limitations of the claim, Applicant respectfully submits that claim 1 is patentable over the cited references. Accordingly, Applicant requests that the rejection of claims 1 under 35 U.S.C. § 103(a) be withdrawn.

Independent claim 7 includes a limitation that is similar to the limitation of claim 1. Given that the cited references fail to disclose at least the described limitations, Applicants respectfully submit that independent claim 7 is patentable over the cited references. Furthermore, independent claim 7 may be patentable over the cited references for additional reasons. Accordingly, Applicants request that the rejection of claim 7 under 35 U.S.C. § 103(a) be withdrawn.

Given that claims 2-6 and 8-10 depend from independent claims 1 and 7, which are patentable over the cited references, Applicant respectfully submits that dependent claims 2-6 and 8-10 are also patentable over the cited references. Accordingly, Applicant requests that the rejection of claims 2-4 and 8 under 35 U.S.C. § 103(a) be withdrawn.

## CLAIMS 11-17

Claim 11 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Michizono in view of Eberle. Applicant submits that claim 11 is amended to include allowable subject matter of claim 14, which is canceled. Accordingly, Applicant respectfully submits that claim 11 is patentable over the combination of cited references and requests that the rejection of claim 11 under 35 U.S.C. § 103(a) be withdrawn.

Given that claims 12-17 depend from independent claim 11, which is patentable over the cited references, Applicant respectfully submits that dependent claims 12-17 are also patentable over the cited references. Accordingly, Applicant requests that the rejection of claims 12 and 15-17 under 35 U.S.C. § 103(a) be withdrawn.

## CLAIMS 18-25

Claim 18 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Michizono in view of Eberle. Applicant respectfully submits that claim 18 is patentable over the combination of cited references because the combination does not teach or suggest all of the limitations of the claim. Claim 18 recites:

An interconnect coupled to a plurality of initiator network resources as well as a plurality of target network resources, wherein the interconnect comprises:

**circuitry** to receive transactions from the plurality of initiator network resources, wherein the circuitry to receive transactions includes **one or more filter units** and **one or more splitter units** to configure segmented pathways in the interconnect; and

an arbitration controller to generate control signals for the filter units and the splitter units to configure a connection pathway in the interconnect between a first initiator network resource and a first target network resource, wherein the configured connection pathway to allow an information transfer between the initiator network-resource and the target network-resource while isolating other segments of the pathways in the interconnect not part of the information transfer between the first initiator network resource and the first target network-resource.

(Emphasis added).

Applicant respectfully submits that the Office Action fails to establish a *prima facie* case of obviousness with regard to claim 18 because the Office Action does not provide any prior art references to purportedly teach or suggest all of the limitations of the claim. In particular, the Office Action does not provide a prior art reference to teach or

suggest circuitry to receive transactions from the plurality of initiator network resources, wherein the circuitry to receive transactions includes one or more filter units and one or more splitter units to configure segmented pathways in the interconnect

Given that the Office Action does not establish a *prima facie* case of obviousness for the reasons stated above, Applicant respectfully requests that the rejection of claim 18 under 35 U.S.C. § 103(a) be withdrawn.

Given that claims 19-25 depend from independent claim 18, which is patentable over the cited references, Applicant respectfully submits that dependent claims 19-25 are also patentable over the cited references. Accordingly, Applicant requests that the rejection of claims 20 and 22-25 under 35 U.S.C. § 103(a) be withdrawn.

#### Allowable Subject Matter

Claims 5-6, 9-10, 13-14, 19, and 21 stand objected to as depending from a rejected independent claim, but would be allowable if rewritten in independent form to include all intervening claim limitations. Applicant notes that each of the Examiner's statements of reasons for allowance is to be taken in light of the structure and/or interaction recited in the respective claims. Applicant also notes that the comments in the current Office Action may have paraphrased the language of the claims. It should be understood that the language of the claims themselves sets out the scope of the claims.

### CONCLUSION


It is respectfully submitted that in view of the remarks set forth herein, the rejections and objections have been overcome. If the Examiner believes a telephone interview would expedite the prosecution of this application, the Examiner is invited to contact Jeffrey Holman at (408) 720-8300.

If there are any additional charges, please charge them to Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

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Jeffrey T. Holman  
Reg. No. 51,812

12400 Wilshire Blvd.  
Seventh Floor  
Los Angeles, CA 90025-1026  
(408) 720-8300